

HP-41C Solar System Calcs P by Paul Schlyter  
PPC Calculator Journal Vol 8 N3 P30 May 1981

```
01 "DATA"
02 AVIEW
03 XROM 30,02 ;RDTA
04 "PROG"
05 AVIEW
06 TONE 07
07 XROM 30,04 ;RSUB
08 STOP
09 LBL 20
10 RCL 06
11 *
12 +
13 LBL 21
14 360
15 MOD
16 RTN
17 LBL "P"      ;Solar System Calculations
18 STO N
19 RCL 26
20 RCL 25
21 XEQ 20
22 STO 00
23 STO 05
24 RCL 24
25 P-R
26 1
27 +
28 *
29 R-D
30 RCL 00
31 +
32 1
33 P-R
34 RCL 24
35 -
36 1
37 RCL 24
38 X^2
39 -
40 SQRT
41 ST* Z
42 RDN
43 R-P
44 STO 15
45 RDN
46 RCL 23
47 RCL 22
48 XEQ 20
49 ST+ 05
50 +
51 XEQ 21
52 STO 14
53 RCL 05
54 XEQ 21
55 STO 05
56 1
57 RCL N
58 X=0?
59 GTO 33
60 CF 05
61 X=Y?
62 SF 05
63 8
64 *
65 27
66 +
67 STO M
```

68 RCL IND M  
69 DSE M  
70 RCL IND M  
71 DSE M  
72 XEQ 20  
73 STO 01  
74 STO 08  
75 STO 09  
76 STO 10  
77 RCL IND M  
78 P-R  
79 1  
80 +  
81 \*  
82 R-D  
83 ST+ 01  
84 LBL 10  
85 RCL 01  
86 RCL IND M  
87 CHS  
88 P-R  
89 1  
90 +  
91 X<>Y  
92 R-D  
93 RCL 01  
94 +  
95 RCL 09  
96 -  
97 X<>Y  
98 /  
99 ST- 01  
100 ABS  
101 .001  
102 X<=Y?  
103 GTO 10  
104 RCL 01  
105 1  
106 P-R  
107 RCL IND M  
108 -  
109 1  
110 RCL IND M  
111 X^2  
112 -  
113 SQRT  
114 ST\* Z  
115 RDN  
116 R-P  
117 DSE M  
118 RCL IND M  
119 DSE M  
120 \*  
121 STO 13  
122 RDN  
123 RCL IND M  
124 DSE M  
125 FC? 05  
126 GTO 01  
127 RCL IND M  
128 DSE M  
129 XEQ 20  
130 LBL 01  
131 ST+ 08  
132 ST+ 10  
133 +  
134 RCL 13  
135 P-R  
136 RCL IND M  
137 DSE M

138 RCL Z  
139 P-R  
140 X<>Y  
141 STO 01  
142 RDN  
143 X<>Y  
144 R-P  
145 X<>Y  
146 RCL IND M  
147 DSE M  
148 ST+ 08  
149 +  
150 RCL IND M  
151 RCL 06  
152 \*  
153 ST+ 08  
154 +  
155 XEQ 21  
156 STO 11  
157 RCL 01  
158 RCL Z  
159 R-P  
160 RDN  
161 STO 12  
162 FS? 02  
163 XEQ 25  
164 FC? 00  
165 XEQ 32  
166 RCL 12  
167 RCL 13  
168 P-R  
169 X<>Y  
170 STO 10  
171 X<>Y  
172 RCL 11  
173 X<>Y  
174 P-R  
175 FS? 05  
176 GTO 01  
177 RCL 14  
178 RCL 15  
179 P-R  
180 ST+ Z  
181 RDN  
182 ST+ Z  
183 RDN  
184 LBL 01  
185 RCL 10  
186 RCL Z  
187 GTO 02  
188 LBL 33  
189 FS? 02  
190 XEQ 25  
191 RCL 14  
192 RCL 15  
193 P-R  
194 0  
195 STO 11  
196 STO 12  
197 STO 13  
198 RCL Z  
199 LBL 02  
200 FS? 01  
201 GTO 01  
202 R-P  
203 RCL 21  
204 ST+ Z  
205 RDN  
206 P-R  
207 LBL 01

208 RCL Z  
209 R-P  
210 X<>Y  
211 XEQ 21  
212 STO 08  
213 RDN  
214 R-P  
215 STO 10  
216 RDN  
217 STO 09  
218 RTN  
219 LBL 25  
220 RCL 03  
221 RCL 06  
222 -  
223 RCL 92  
224 \*  
225 ST+ 11  
226 ST+ 14  
227 RTN  
228 LBL 32  
229 3  
230 RCL N  
231 1  
232 X=Y?  
233 GTO 31  
234 CLX  
235 4  
236 -  
237 X>0?  
238 X>Y?  
239 RTN  
240 RCL 67  
241 RCL 66  
242 XEQ 20  
243 STO 00  
244 2  
245 \*  
246 RCL 75  
247 RCL 74  
248 XEQ 20  
249 STO 01  
250 5  
251 \*  
252 -  
253 67.6  
254 -  
255 SIN  
256 GTO IND N  
257 LBL 05  
258 GTO 35  
259 LBL 06  
260 GTO 36  
261 LBL 07  
262 RCL 01  
263 RCL 09  
264 2  
265 \*  
266 -  
267 6  
268 +  
269 SIN  
270 RCL 01  
271 RCL 09  
272 3  
273 \*  
274 -  
275 33  
276 +  
277 SIN

278 +  
279 27  
280 /  
281 ST+ 11  
282 RTN  
283 LBL 36  
284 81  
285 \*  
286 RCL 00  
287 2  
288 \*  
289 RCL 01  
290 4  
291 \*  
292 -  
293 2  
294 -  
295 COS  
296 STO 02  
297 23  
298 \*  
299 -  
300 RCL 00  
301 RCL 01  
302 2  
303 \*  
304 -  
305 2  
306 -  
307 SIN  
308 12  
309 \*  
310 +  
311 RCL 00  
312 2  
313 \*  
314 RCL 01  
315 6  
316 \*  
317 -  
318 STO 01  
319 70  
320 -  
321 SIN  
322 5  
323 \*  
324 +  
325 RCL 01  
326 2  
327 /  
328 32  
329 +  
330 SIN  
331 +  
332 100  
333 /  
334 ST+ 11  
335 RCL 01  
336 48  
337 -  
338 SIN  
339 RCL 02  
340 -  
341 53  
342 /  
343 ST+ 12  
344 RTN  
345 LBL 35  
346 -66  
347 \*

348 RCL 00  
349 RCL 01  
350 -  
351 2  
352 \*  
353 STO 02  
354 21  
355 +  
356 SIN  
357 11  
358 \*  
359 -  
360 RCL 00  
361 3  
362 \*  
363 RCL 01  
364 5  
365 \*  
366 -  
367 21  
368 +  
369 SIN  
370 8  
371 \*  
372 +  
373 RCL 02  
374 RCL 00  
375 -  
376 SIN  
377 7  
378 \*  
379 -  
380 RCL 02  
381 2  
382 /  
383 COS  
384 4  
385 \*  
386 +  
387 RCL 02  
388 RCL 01  
389 -  
390 52  
391 +  
392 SIN  
393 5  
394 \*  
395 +  
396 RCL 00  
397 RCL 01  
398 5  
399 \*  
400 -  
401 69  
402 -  
403 SIN  
404 3  
405 \*  
406 -  
407 200  
408 /  
409 ST+ 11  
410 RTN  
411 LBL 31  
412 RCL 08  
413 XEQ 21  
414 STO 08  
415 RCL 05  
416 -  
417 XEQ 21

418 2  
419 \*  
420 STO 01  
421 RCL 10  
422 XEQ 21  
423 STO 10  
424 RCL 09  
425 RCL 01  
426 -  
427 STO 02  
428 SIN  
429 -255  
430 \*  
431 RCL 01  
432 SIN  
433 132  
434 \*  
435 +  
436 RCL 00  
437 SIN  
438 37  
439 \*  
440 -  
441 RCL 09  
442 2  
443 \*  
444 RCL 01  
445 -  
446 SIN  
447 12  
448 \*  
449 -  
450 RCL 09  
451 RCL 01  
452 +  
453 SIN  
454 RCL 09  
455 RCL 01  
456 -  
457 RCL 00  
458 +  
459 SIN  
460 -  
461 11  
462 \*  
463 -  
464 RCL 01  
465 RCL 00  
466 -  
467 SIN  
468 9  
469 \*  
470 +  
471 RCL 09  
472 RCL 00  
473 -  
474 SIN  
475 8  
476 \*  
477 +  
478 RCL 01  
479 2  
480 /  
481 SIN  
482 7  
483 \*  
484 -  
485 RCL 09  
486 RCL 00  
487 +

488 SIN  
489 6  
490 \*  
491 -  
492 RCL 10  
493 2  
494 \*  
495 RCL 01  
496 -  
497 SIN  
498 3  
499 \*  
500 -  
501 RCL 09  
502 RCL 01  
503 2  
504 \*  
505 -  
506 SIN  
507 2  
508 \*  
509 +  
510 200  
511 /  
512 ST+ 11  
513 RCL 09  
514 RCL 01  
515 -  
516 COS  
517 .58  
518 \*  
519 RCL 01  
520 COS  
521 .48  
522 \*  
523 +  
524 ST- 13  
525 RCL 10  
526 RCL 01  
527 -  
528 SIN  
529 -35  
530 \*  
531 RCL 02  
532 RCL 10  
533 -  
534 SIN  
535 11  
536 \*  
537 -  
538 RCL 02  
539 RCL 10  
540 +  
541 SIN  
542 9  
543 \*  
544 -  
545 RCL 10  
546 RCL 01  
547 +  
548 SIN  
549 7  
550 \*  
551 +  
552 RCL 09  
553 2  
554 \*  
555 RCL 10  
556 +  
557 SIN

558 3  
559 \*  
560 +  
561 200  
562 /  
563 ST+ 12  
564 END

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4116405921291342411313405940121743920B85CF24181142  
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424020211542411619415913424112101043920B85CF1F28E0  
0015382541E000151242312AE000153A29214132591C121515  
42215911131242402059131742412912422141591112424129  
21405929214120405941111142412120415919424029204159  
18424021124359174241292040591642412A12422141591342  
4129211242415912424012101043920B2921415A1A15184221  
5A1A14184240930D2A2141591C131542222A41591111424122  
2A40591942412A2140591742402912422A4059134240121010  
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754 BYTES

# HP-41C Solar System Calcs P by Paul Schlyter PPC V8 N3 P30 May 1981

Program Registers Needed: 108

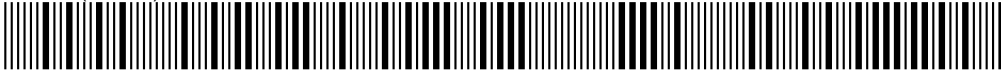
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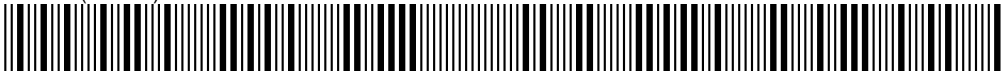
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Row 3 (14 - 19)



Row 4 (19 - 27)



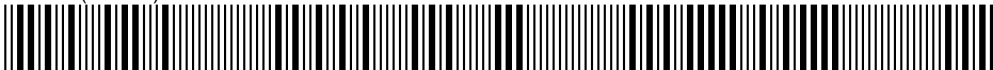
Row 5 (28 - 38)



Row 6 (39 - 48)



Row 7 (48 - 54)



Row 8 (55 - 62)



Row 9 (63 - 70)



Row 10 (71 - 79)



Row 11 (80 - 90)



Row 12 (91 - 101)



Row 13 (101 - 110)



Row 14 (110 - 119)



Row 15 (119 - 127)

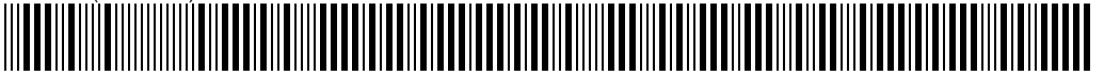


Row 16 (127 - 134)



# HP-41C Solar System Calcs P by Paul Schlyter PPC V8 N3 P30 May 1981

Row 17 (135 - 144)



Row 18 (145 - 153)



Row 19 (153 - 162)



Row 20 (162 - 169)



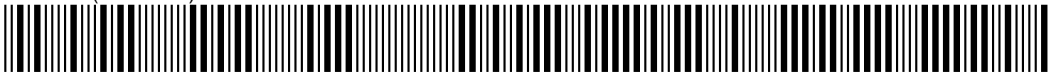
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Row 22 (180 - 188)



Row 23 (189 - 198)



Row 24 (198 - 206)



Row 25 (207 - 216)



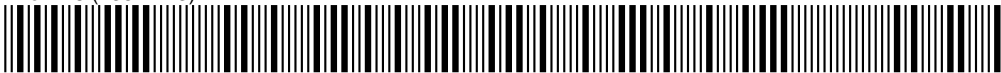
Row 26 (217 - 226)



Row 27 (226 - 234)



Row 28 (235 - 243)



Row 29 (244 - 252)



Row 30 (253 - 259)



Row 31 (260 - 270)



Row 32 (271 - 281)



Row 33 (281 - 291)



# HP-41C Solar System Calcs P by Paul Schlyter PPC V8 N3 P30 May 1981

Row 34 (292 - 303)



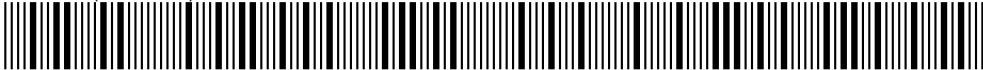
Row 35 (304 - 315)



Row 36 (316 - 327)



Row 37 (328 - 336)



Row 38 (336 - 345)



Row 39 (346 - 355)



Row 40 (356 - 367)



Row 41 (367 - 379)



Row 42 (380 - 391)



Row 43 (392 - 403)



Row 44 (404 - 412)



Row 45 (413 - 421)



Row 46 (422 - 429)



Row 47 (430 - 439)



Row 48 (440 - 451)



Row 49 (452 - 463)



Row 50 (464 - 476)



# HP-41C Solar System Calcs P by Paul Schlyter PPC V8 N3 P30 May 1981

Row 51 (477 - 489)



Row 52 (490 - 502)



Row 53 (503 - 512)



Row 54 (513 - 521)



Row 55 (522 - 531)



Row 56 (532 - 543)



Row 57 (544 - 556)



Row 58 (557 - 564)

